

ISAKOVA, N.P.

"Biochemie et mode d'action de bacillus thuringiensis."

Report submitted to the 2nd Intl. Colloq. on Insect Pathology  
and Microbiological Control, Paris, France 16-24 Oct 1962

15544

S/020/62/142/006/017/019  
B101/B144

AUTHORS:

5.5400  
Nicol'skiy, B. P., Corresponding Member AS USSR, Isakova,  
N. P., and Shul'ts, M. M.

TITLE:

Composition of boron aluminosilicate glasses and its effect  
upon their electrodic and acid properties

PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 142, no. 6, 1962, 1331-1334

TEXT: The present paper was read at the session of the OS Otdeleniya  
khimicheskikh nauk AN SSSR (OS of the Department of Chemical Sciences of  
the AS USSR) on May 30, 1957. It concerns a new method of solving glass  
electrode problems and such related to hyalurgy in general. The electrode  
potential as a function of the pH of the electrolytic solution was measured  
on silicate glasses with a content (mole%) of 0-16.3 of  $B_2O_3$ , 0-2 of  $Al_2O_3$ ,  
10-22.7 of  $Na_2O$ , and 0-6.4 of  $CaO$ :  $\varphi = \varphi^0 + \frac{2.3}{F} \log(a_H + K a_{Na})$ , where  
 $\varphi = 2.3RT/F$ ;  $K = a_H \cdot N_{Na} / a_{Na} \cdot N_H$  is the exchange coefficient between  $Na^+$   
and  $H^+$ . With increasing pH, each glass passed from the hydrogen function  
Card 1/2 ✓

Composition of boron aluminosilicate ...

S/020/62/142/006/017/019  
B101/B144

$(\varphi_H = \varphi^0 + \nu \log a_H)$  to the sodium function:  $\varphi_{Na} = \varphi^0 + \nu \log K a_{Na}$ . .  
 This results in the relation:  $-\log K = (\varphi_H - \varphi_{Na})/\nu - \log(a_H/a_{Na})$ . A  
 dependence of K on the ratio between the strong acids and the sum of  
 strong and weak acids in the glass was found.  $-\log K$  is a unique function  
 of the molar part,  $a$ , of the strong acids in the glass:  
 $a = [B_2O_3(\%) + Al_2O_3(\%)]/[Na_2O(\%) + CaO(\%)]$ . The transition from the  
 hydrogen to the sodium function occupies a wide zone of the diagram in  
 glasses with a comparable content of strong and weak acids, and a narrow  
 one in glasses with a prevailing content of either strong or weak acids  
 (Fig. 3). There are 3 figures, 1 table, and 8 references: 7 Soviet and  
 1 non-Soviet. The reference to the English-language publication reads  
 as follows: B. Lengyel, E. Blum, Trans. Farad. Soc., 30, 461 (1934).

ASSOCIATION: Nauchno-issledovatel'skiy khimicheskiy institut Leningrads-  
 kogo gosudarstvennogo universiteta im. A. A. Zhdanova  
 (Scientific Research Chemical Institute of the Leningrad  
 State University imeni A. A. Zhdanov)

SUBMITTED: March 11, 1961

Card 2/3

ISAKOVA, N.P.

Mechanism of the action of the entomopathogenic *Bacillus cereus*  
var. *galleriae* on insects. Trudy VIZR no. 21 pt. 1:89-94 '64.  
(MIRA 18:12)

FINASHINA, G.N.; NESMEYANOV, A.N., akademik, glav. red.; TOPCHIYEV,  
A.V., akademik, zam. glav. red. [deceased]; ISAKOVA, O.V.,  
otv. red.; LIKHTENSHEYN, Ye.S., otv. red.; SHUNKOV, V.I.,  
otv. red.; DRAGUNOV, E.S., red.; SUSHKOVA, L.A., tekhn.  
red.

Aleksandr Abramovich Grinberg. Vstup. stat'ia L.M.Volshteina.  
Bibliografiia sostavlena G.N.Finashinoi. Moskva, 1963. 58 p.  
(Materialy k bibliografii uchenykh SSSR. Seriya khimiche-  
skikh nauk, no.32) (MIRA 16:10)

1. Akademiya nauk SSSR.  
(Grinberg, Aleksandr Abramovich, 1898-)

ISAKOVA, O.V.: NESMEYANOV, A.N., akademik, glav. red.  
LIKHTENSHTEYN, Ye.S., **otv. red.**; SHUNKOV, V.I., red.

Aleksandr Ivanovich Oparin. Izd.2., dop. Bibliografiia  
sost. O.V.Isakovoi. Moskva, Nauka, 1964. 109 p. (Mate-  
rialy biobibliografii uchenykh SSSR. Seriya biokhimi,  
no.6) (MIRA 18:4)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent AN SSSR  
(for Shunkov).

GORYACHEVA, R.I.; LIKHTENSHPTEYN, Ye.S., otv. red.; ISAKOVA, O.V.,  
otv. red.; SHUNKOV, V.I., otv. red.; NESMEYANOV, A.N.,  
akademik, glav. red.; TOPCHIYEV, A.V., akademik, zam.  
glav. red. [deceased]; DRAGUNOV, E.S., red.

Viktor Nikolaevich Kondrat'ev. Vstup. stat'ia V.V.Vcevod-  
skogo i A.P.Purmalia. Bibliografiia sost. R.I.Goriachevoi.  
Moskva, Izd-vo "Nauka," 1964. 49 p. (Materialy k biobiblio-  
grafii uchenykh SSSR. Ser. khimicheskikh nauk, no.33)

(MIRA 17:3)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent AN SSSR (for  
Shunkov).

GORYACHEVA, R.I.; ZAYTSEVA, A.V.; NESMEYANOV, A.N., akademik,  
glav. red.; ISAKOVA, O.V., otv. red.; LIKHTENSHTAYN,  
Ye.S., otv. red.; SHUNKOV, V.I., otv. red.

Aleksandr Vasil'yevich Topchiev. (1907-1962). Moskva,  
Nauka, 1964. 160 p. (Materialy k bibliografii uchenykh  
SSSR. Seriya khimicheskikh nauk no.34) (MIRA 18:3)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent AN SSSR  
(for Shunkov).

YEPHANOVA, A.P.; ISAKOVA, O.V., otv. red.; LIKHTENSHTEY, Ye.S.,  
otv. red.; SHUNKOV, V.I., otv. red.; NESMEYANOV, A.N.,  
akademik, glav. red.

Boris Nikolayevich IUR'ev. Bibliografiia sost. A.P.Epifanovoi.  
Moskva. Nauka, 1964. 51 p. (Materialy k bibliografii uche-  
nykh SSSR. Seriiia tekhnicheskikh nauk. Mekhanika, no.10)  
(MIRA 18:12)

1. Akademiya nauk SSSR.

YEPIFANOVA, A.P.; NESMEYANOV, A.N., akademik, glav. red.; ~~ISAKOVA,~~  
~~Q.V.~~, otv. red.; LIKHTENSHEYN, Ye.S., otv. red.;  
SHUNKOV, V.I., otv. red.

[A.I.Berg] Aksel' Ivanovich Berg. Vstup. stat'ia I.V.  
Breneva. Bibliografiia sostavlena A.P.Epifanovoi. Mo-  
skva, Nauka, 1965. (Materialy k biobibliografii uche-  
nykh SSSR. Seriiia tekhnicheskikh nauk: Radiotekhnika,  
no.2) (MIRA 19:1)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent AN SSSR  
(for Shunkov).



ISAKOVA, R. A.

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium.  
Physicochemical analysis. Phase transitions

B-8

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11159

Author : Ponomarev V.D., Isakova R.A.

Inst : Academy of Sciences Kazakh SSR

Title : Vapor Pressure of Antimony Trisulfide over  $Sb_2S_3$  -PbS Melt

Orig Pub : Izv. AN Kazakh SSR, ser. gorn. dela, stroymaterialov i metallurgii,  
1956, No 6, 48-52 (Kazakh summary)

Abstract : By the "jet" method determination was made of vapor pressure (P) of  $Sb_2S_3$  fused with PbS in the temperature interval 750-925°, with a  $Sb_2S_3$  content in the investigated samples, of 14.5 - 79.9% by weight. Results of experiments are tabulated and represented graphically. It was found that with rising temperature P  $Sb_2S_3$  over the melt increases. Temperature dependence of P  $Sb_2S_3$  in  $\lg P - 1/T$  coordinates is expressed by straight lines having almost the same inclination with melts of different composition. Determination was made of the heat of evaporation of  $Sb_2S_3$  from the fusion, which in the temperature range under study is of 25200 cal/mole. With decrease of  $Sb_2S_3$  content in the melt its P decreases regularly (case of negative deviation from Raoult's law).

Card 1/1

MILYUTINA, N.A.; ISAKOVA, R.A.; TARABAYEV, S.I.

Method of determining the water of crystallisation in crystal  
hydrates by the use of radioactive isotopes. Vest. AN Kazakh.  
SER 14 no. 3:84-89 Mr '58. (NIRA 11:5)  
(Crystallisation, Water of) (Radioactive tracers)  
(Hydrates--Analysis)

ISAKOVA, R.A.

18(5A.3) PHASE I BOOK REFINATION 507/2094  
Akademiya nauk Kazakhskoy SSR. Institut metallurgii i  
obogashcheniya

Sredy, t. 1 (Transactions of the Institute of Metallurgy and  
Ore Dressing, Kazakh SSR Academy of Sciences, Vol. 1)  
Alma-Ata, Kazakh AN Kazakhskoy SSR, 1959. 159 p. 1,225  
copies printed.

Ed. by Ye. N. Kuznetsov; Tech. Ed.: Z.P. Berekina;  
Editorial Board: V.D. Ponomarev (Resp. Ed.), M. M. Lebedev,  
A.N. Grigorovich, L.P. Ni, R.A. Isokova, I.M. Polyzyanov  
(Resp. Secretary), and Ye. I. Ponomareva.

FOREWORD: This book is intended for metallurgists and  
metallurgical engineers.

CONTENTS: This is a collection of articles dealing with various  
aspects of phase metallurgy, principally nonferrous, and  
with related matters such as treatment of ore concentrates,  
practice of slags, etc. Topics discussed include pre-  
cipitation of copper from slags, extraction of arsenic  
from slags, recovery of rare metals from smelting dust,  
electrolytic precipitation of lead and zinc, and drying of  
lead-zinc concentrates. Three articles are concerned with  
the metal, rhodium. The articles are accompanied by Soviet  
and non-Soviet references.

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Ponomareva, Ye. I., Ye. G. Svirchevskaya, and L.G. Flekshner. Extraction of Arsenic from Slags	53
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Grigorenko, A.M., Ye. L. Sakhayev, R.A. Kalitina, Ye. G. Svirchevskaya, and I.D. Zhurav. Some Ex- traction of Cadmium, Indium, Thallium, and Zinc from Lead-smelting Dusts	65

Card 3/5

ISAKOVA, R.A.; PONOMAREVA, Ye.I.

Treating materials containing antimony and arsenic by sulfi-  
dation and sublimation. Trudy Inst.met. i obogoshch. 1:37-  
45 '59. (MIRA 12:5)  
(Antimony) (Arsenic) (Nonferrous metals--Metallurgy)

ISAKOVA, R.A.; PONOMAREV, V.D.

Method of direct determination of dissociation pressure of  
metal sulfides. Izv. AN Kazakh. SSR. Ser. met. obog. i ognep.  
no. 1:65-70 '59. (MIRA 13:4)  
(Sulfides--Metallurgy)

AVETISYAN, Kh.K. [deceased]; ISAKOVA, R.A.

Experimental method of determining the best charge composition  
for reverberatory copper smelting. Trudy Inst.met.UFAN SSSR  
no.3:75-78 '59. (MIRA 13:4)  
(Copper--Metallurgy) (Smelting furnaces)

NESTEROV, V.N.; ISAKOVA, R.A.; Primal uchastiye SAKENOV, A.B., laborant

Treatment of lead industry dross by volatilization in vacuum. Trudy  
Inst. met. i obogashch. AN Kazakh. SSR 2:86-91 '60. (MIRA 13:10)  
(Lead--Metallurgy) (Vacuum metallurgy)

S/137/61/000/011/002/123  
A060/A101

AUTHORS: Isakova, R. A., Ponomarev, V. D.

TITLE: Vapor pressure and dissociation pressure of the rhenium sulfides

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 3-4, abstract 11A26 ("Izv. AN KazSSR Ser. metallurgii, obogashcheniya i ogneuporov", 1960, no. 3 (9), 10-17, Kazakh. summary)

TEXT: The authors cite the results of the experimental determination of the dissociation pressure of rhenium heptasulfide, as well as the vapor pressure and the dissociation pressure of Re disulfide. The investigation was carried out by two methods: in the interval 250 - 345°C by the transport method, and in the interval 340 - 410°C - by the static method. The quantity of elemental sulfur condensed out was determined by two methods: by the sulfite method and by burning off in a dry air atmosphere with subsequent absorption of the sulfur by water and titration with an iodine solution, and that of the sulfurous anhydride - with an alkali solution. A diagram of the apparatus for the determination of dissociation pressure of Re heptasulfide by the transport method is given. The data obtained by this method are cited. The dissociation pressure of Re hepta-

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Vapor pressure and dissociation ...

S/137/61/000/011/002/123  
AO60/A101

sulfide for higher temperatures was determined by the static method. Results obtained by the use of this method are given. The vapor pressure and the dissociation pressure of Re disulfide was determined in the temperature interval 720 - 880°C by Knudsen's method, and in the interval 900 - 1,340°C - by the transport method. On the basis of the data obtained it is possible to infer the behavior of Re sulfides in pyrometallurgical processes. ✓

V. Vekshina

[Abstracter's note: Complete translation]

Card 2/2

S/137/51/000/012/044/149  
A005/A101**AUTHORS:** Isakova, R.A., Nesterov, V.N.**TITLE:** Extraction of selenium and tellurium from some industrial products by sublimation in a vacuum**PERIODICAL:** Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 23-24, abstract 126167 ("Tr. In-ta metallurgii i obogashcheniye, AN KazSSR", 1960, v. 3, 124 - 133)**TEXT:** Information is given on results of laboratory investigations concerning the extraction of Se and Te from slurries of sulfuric acid and superphosphate production, and from slurries of electrolytically refined Cu. A system is described of a vacuum unit for metal sublimation from slurries which was employed to study the effect of temperature, duration of the process, admixture of S, and height of the charge layer, on the degree of sublimation of volatile components. It is shown that from slurries of the sulfuric acid production at 350 - 400°C, and S addition, 90 - 97% Se are extracted simultaneously with Hg, which is contained in the slurry. The condensate contains 15-30% Se and up to 70% Hg. Results of generalized tests are used for recommendations concerning the design of

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S/137/61/000/012/044/149  
A005/A101

Extraction of selenium ...

the unit. When processing slurries of the superphosphate production, Se extraction is somewhat higher. Tests with Se sublimation from concentrates obtained during the reprocessing of sulfuric acid slurries containing 55-92% Se by the sodium method, showed the possibility of obtaining high-grade Se. The conditions of the process are: sublimation temperature 400 - 450°C, condensation temperature 260 - 270°C residual pressure 1 - 3 mm Hg, output of high-grade Se 92 - 95%. The presence of Cu tellurides and selenides in a slurry from electrolytical Cu-refining, complicates the sublimation process; therefore sulfidizing of the slurry with sulfur was additionally investigated. After decomposition of the selenides and tellurides, Se and Te can be fully transferred into the gaseous phase at 750°C in a vacuum. However, complete decomposition of these compounds could not be achieved; this is explained by the presence of selenides and tellurides of Ag, requiring different decomposition conditions. The author notes the necessity of improving the equipment for the sulfidizing process.

L. Povedskaya

[Abstracter's note: Complete translation]

Card 2/2

S/137/61/000/011/003/123  
A060/A101AUTHOR: Isakova, R. A.

TITLE: Use of radioactive isotopes in metallurgy

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 4, abstract 11A28  
("Tr. In-ta metallurgii i obogashcheniya. AN KazSSR", 1960, 3,  
190 - 200)

TEXT: The article describes methods of using radioactive isotopes for the determination of vapor pressure of Cu and Zn, the contents of crystallization water, the transit time of particles in the suspended state under kilning, and that of pulp in a flotation cell. In measuring the  $p_{Cu_2S}$  and  $p_{ZnS}$  by the methods of Langmuir and Knudsen the isotopes  $S^{35}$  and  $Zn^{65}$  were used. Upon the example of NaCl it was established that Langmuir's method yields underestimate pressures, whereas the data obtained according to Knudsen's method accord with the literature data. The dissociation pressure of the indicated sulfides was studied by Knudsen's method. The sublimates were condensed out on a crudely cooled surface and in the condensate the sulfide was separated from the elemental sulfur by dissolving the latter in a pinene fraction of turpentine. The ZnS

was

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ISAKOVA, V.A.

Vapor pressure and dissociation pressure of molybdenite. Izv. AN  
Kazakh. SSR. Ser. met., obog. i ogneup. no.3:3-10 '61.

(MIRA 15:1)

(Vapor pressure) (Molybdenite)

ISAKOVA, R.A.; NESTEROV, V.N.; TSEFT, A.L.

Separation of selenium and mercury by volatilization in vacuum  
during the treatment of sludges from sulfuric acid plants.

Trudy Inst. met. i obogashch. AN Kazakh. SSR 4:8-13 '62.

(MIRA 15:8)

(Sulfuric acid industry--By products). (Selenium)

S/317/62/005/000/001/012  
A006/A101AUTHORS: Isakova, R. A., Nesterov, V. N.

TITLE: Vapor pressure of arsenic and thallium sulfides, vapor pressure of arsenic trisulfide

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut metallurgii i obogashcheniya. Trudy, v. 5, 1962, Tsvetnaya metallurgiya, 29 - 33

TEXT: Several authors have established that lower values are obtained when vapor pressure of metal compounds is investigated by the method of evaporation from an open surface without taking into account the Langmuir coefficient. Isakova and Nesterov studied the vapor pressure of arsenic trisulfide, containing 62.16% As and 39.9% S, by the static method in a 350 - 540°C temperature range. The data obtained can be graphically expressed by a straight line plotted according to the equation  $\lg P_{\text{mm}} = -\frac{3865.1}{T} + 7.118$ . The change in the isobaric evaporation process is then 17,683 - 19.39 T in the investigated temperature range; latent heat is 17,683 cal/mole, and entropy change of evaporation is

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Vapor pressure of arsenic and...

S/817/62/005/000/001/012  
A006/A101

19.39 cal/mole degree. The boiling temperature of  $As_2S_3$  found by extrapolation of the experimental data is  $660^\circ C$  which is  $47^\circ$  below the value established by Ionker. A comparison of these data with those obtained by Hsiao and Schlechter by the Langmuir method shows that the evaporation method yields also lower values. The values obtained for vapor pressure of thallium sulfides, obtained by Shakhtakhtinskiy and Kuliyeu, and by Spandau and Klanberg, are considerably different. Therefore the authors investigated vapor pressure of  $Tl_2S$  (92.3% Tl, 7.3% S) by the transfer method at  $700 - 770^\circ C$  and by the static method at  $800 - 1,050^\circ C$ . The vapor pressure as a direct function of temperature is then expressed by the equation  $\lg P_{\text{mm}Tl_2S} = -\frac{8820}{T} + 8.51$ . Free energy of evaporation is  $37,610 + 25.74 T$ , enthalpy and entropy change are  $37.6$  kcal/mole and  $25.74$  cal/mole-degree, respectively. The values obtained are close to those given by Klanberg and Spandau. It can be assumed that Shakhtakhtinskiy's and Kuliyeu's values are overestimated. There are 2 tables and 3 figures.

Card 2/2

NESTEROV, V.N.; TSEFT, A.L.; ISAKOVA, R.A.; NAYMANOV, S.

Recovery of bismuth from concentrates by sublimation in vacuum. Trudy Inst. met. i obog. AN Kazakh. SSR 5:77-81 '62. (MIRA 15:11)  
(Bismuth--Metallurgy) (Vacuum metallurgy)

PHASE I BOOK EXPLOITATION

SOV/6494

Isakova, Rufina Afanas'yevna

Davleniye para sul'fidov tsvetnykh metallov (Vapor Pressure of Non-ferrous Metal Sulfides) Alma-Ata, Izd-vo AN KazSSR, 1963. 129 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk Kazakhskoy SSR. Institut metallurgii i obogashcheniya.

Resp. Ed.: V. D. Ponomarev, Member of the Academy of Sciences KazSSR, Professor, Doctor of Technical Sciences; Ed.: Yu. N. Kuznetsov; Tech. Ed.: A. G. Khudyakov.

PURPOSE: This handbook is intended for technical personnel, metallurgical engineers, and graduate and undergraduate students.

COVERAGE: A manual on the theory of metallurgical processes, this book reviews existing literature on the determination of vapor pressures of sulfides of heavy, rare, and minor nonferrous metals. The book

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Vapor Pressure (Cont.)

SOV/6494

presents a critical analysis of the methods used in the determinations and a description of the apparatus involved. After analysis of the available literature, the author recommends the most reliable values or presents the results of further experiments. The book deals with the effusion, dynamic, statistic, boiling-point and condensation, and isotopic exchange methods for determination of vapor pressure of heavy nonferrous Zn, Pb, Cd, Cu sulfides; of rare and scattered sulfides of Ge, In, Ga, Tl, Mo, Rh; and of minor metal sulfides of Sn, Sb, As, and Bi. No personalities are mentioned. There are 101 references: 61 Soviet, and 40 English.

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BN/zp/eb  
2/3/64

ISAKOVA, R.A.; NESTEROV, V.N.; SHENDYAPIN, A.S.

Vapor pressure and the dissociation of copper and bismuth  
sulfides. Trudy Inst. met. i obog. AN Kazakh. SSR 6:156-  
159 '63. (MIRA 16:10)

ISAKOVA, R.A.; NESTEROV, V.N.; YERDUTIN, V.S.

Determining the vapor pressure of mercury selenide. Izv. Inst.  
met. i obog. AN Kazakh. SSR 8:6-7 '63 (MIRA 17:8)

ISAKOVA, R.A.; BESHBEROV, V.V.; TOGT, A.I.

Recovery of lead and zinc from complex metal ore matter by  
sublimation in vacuum. Trudy inst. mat. i sbog. ON Kazakh.  
SSR 8:13-18 '63 (OLPA 17:8)

S/078/63/008/001/003/026  
B101/B186AUTHORS: Isakova, R. A., Nesterov, V. N., Shendyapin, A. S.

TITLE: The vapor pressure of lead sulfide and indium sulfide

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 18-23

TEXT: To amplify existing published data the vapor pressure of PbS was determined in a flow of argon between 840 and 1100°C, and that of In<sub>2</sub>S<sub>3</sub> between 920 and 1360°C. Preliminary experiments showed that the Ar rate below 100 ml/hr does not affect the vapor pressure of the sulfides. Dissociation was observed for PbS. As this affected the vapor pressure by film formation on the sample surface a new weighed portion was used for each experiment. Result:  $\log P_{\text{PbS, mm Hg}} = -11242.5/T + 10.08$ ;  $\Delta H_T^\circ = 11.24 \text{ kcal/mole}$ ;  $\Delta S_T^\circ = 32.95 \text{ cal/mole}\cdot\text{deg}$ . For In<sub>2</sub>S<sub>3</sub>, the condensate formed varicolored zones. The analysis did not, however, show any deviation from the composition In<sub>2</sub>S<sub>3</sub>. It is noted that the samples remained friable even at 1360°C, which contradicts the m.p. of In<sub>2</sub>S<sub>3</sub> being 1050°C as mentioned

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The vapor pressure of lead sulfide and...

S/078/63/008/001/003/026  
B101/B186

in publications. Result:  $\log P_{\text{In}_2\text{S}_3}, \text{ mm Hg} = -12962.5/T + 10.12;$   
 $\Delta H_T^\circ = 59.3 \text{ kcal/mole}; \Delta S_T^\circ = 33.12 \text{ cal/mole-deg.}$  There are 6 figures and

5 tables. The English-language references are: C. M. Hsiao,  
A. W. Schlechten, J. Metals, January, 1952; Kingo Sudo, J. Mining and  
Metallurgical Institute of Japan, 77, 844 (1958). ✓

ASSOCIATION: Institut metallurgii i obogashcheniya Akademii nauk  
Kazakhskoy SSR (Institute of Metallurgy and Dressing of the  
Academy of Sciences Kazakhskaya SSR)

SUBMITTED: March 13, 1962

Card 2/2

SATFAYEVA, T.A.; ISAKOVA, R.A.; POLYAKOVA, T.P.

Some physicochemical properties of sulfides, selenides and  
metalliferous rhenium. Trudy Inst.geol.nauk AN Kazakh.SSR 7:  
318-326 '63. (MIRA 17:9)

ACCESSION NR: AP4029705

S/0136/64/000/004/0055/0060

AUTHORS: Isakova, R.A.; Yesyutin, V.S.; Nesterov, V.N.; Tasiyev, Zh. Sh.; Morozov, I.F.; Gerasimov, V.S.

TITLE: Continuous Vacuum Refining of Selenium by Means of Fractional Vapor Condensation

SOURCE: Tsvetny\*ye metally\*, no. 4, 1964, 55-60

TOPIC TAGS: selenium, vapor condensation, separation, feed rate, impurity, vacuum refining, continuous

ABSTRACT: The authors investigated the vacuum refining of selenium in a continuous fractional column equipped with screens. The vacuum extraction of selenium was based on the considerable difference which exists in the pressures of selenium, selenide, metal and impurity vapors. A great amount of contradictory data on selene-sulfur compounds have been made available in literature. Chishikov et al (Ob isparenii selena iz yego splavov c seroi (Evaporation of selenium from its sulfur alloys) Tr. Inst. metallurgii im. Baykova (Proceedings of the Metallurgical Institute), vol. I, 1957) and others

Card 1/3

ACCESSION NR: AP4029705

have shown experimentally that sulfur-selenium cannot be fully separated. In view of the difficulties involved in the separation of selenium and mercury, the authors investigated the vapor pressure of mercury selenide within the 350-450C range which proved to be lower than that of elementary selenium. The purest selenium was obtained at a condensation temperature of 240-270C. The effects of temperature, feed rate and residual pressure were analyzed. The authors found that an increase in temperatures between 370 to 430C is accompanied by a productivity increase from 5 to 50 g/min. The ratio of refined metal to the mother liquor depends on temperatures and feed rate, and this may be readily predetermined. Residual pressure was found to affect the process considerably. An increase of up to 1 mm Hg at 430C increases the yield of the overflow from 22 to 70.9%. Quality tests showed that the selenium had a lower content of impurities as temperatures were decreased and vapor and selenium counterflow introduced into the process. A study of the distribution of impurities showed that the fractions of the two center screens which worked within the 270-240C temperature range had the lowest

Card

2/3

ACCESSION NR:AP4029705

content of volatile and non-volatile impurities. Assuming that the yield of the last screen is a maximum of 1% while that of the first screen may be controlled by the distance of the screen from the evaporator (i.e. temperature), the concentration of the major part of impurities in a small amount of the selenium of the first and last screen is possible while 85 to 90% refined selenium would be yielded from the two center screens. The authors contend that the application of this process would decrease the impurities in refined selenium drastically. Orig. art. has: 3 figures and 3 tables

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: ML

NR REF SOV: 007

OTHER: 000

Card 3/3

ISAKOVA, R.A.; UGRYUMOVA, L.Ye.; CHELOKHSAYEV, L.S.

Rapidity of volatilization of lead and zinc sulfides in vacuum.  
Trudy Inst.met.i obog. AN Kazakh,SSR 11:150-159 '64.

(MIRA 18:4)

ISAKOVA, R.A.; SHENDYAPIN, A.S.; NESTEROV, V.N.

Lead sulfide vapor pressure in the system PbS — FeS, Trudy Inst.  
met. i obog. AN Kazakh, SSR 11:160-167 '64.

(MIRA 18:4)

NESTEROV, V.N.; TSEFT, A.L.; ISAKOVA, R.A.

Lead and zinc recovery from lead smelter slags by sublimation  
in vacuum. TSvet. met. 38 no.8:26-30 Ag '65.

(MIRA 18:9)

ISAKOVA, R.S.; BEREZOVIKOV, A.D.

Nitrogen-containing substances in the groats of tomato seeds.  
Trudy po khim.prirod. soed. no.5:87-91 '62. (MIRA 16:11)

1. Laboratoriya khimii belka Kishinevskogo gosudarstvennogo uni-  
versiteta.

ISAKOVA, R.S.

Using tomato-seed oil in the paint-and-varnish industry. Trudy  
Kish.sel'khoz.inst. 26:179-185 '62. (MIRA 16:5)  
(Tomatoes) (Alkyd resins) (Paint materials)

AYZENBERG, L.N., kand.khim.nauk; ISAKOVA, R.S.; MOSYAK, A.A., kand.khim.nauk

Use of tomato-seed oil as a binder in founding. Trudy Kish.-  
Khos.inst. 26:187-193 '62. (MIRA 16:5)  
(Tomatoes) (Binding materials) (Founding)

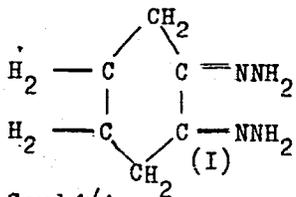
5.3610

2209, 1153, 1195

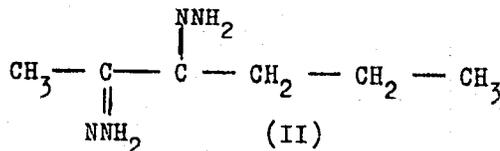
S/079/60/030/008/009/012/XX  
B001/B066AUTHORS: Domnin, N. A., Isakova, S. A., and Kolinskiy, R. Ch.TITLE: Investigations in the Field of Polymethylene Rings.  
XXXV. Synthesis of Dihydrazones of Cyclohexanedione-1,2 and  
Hexanedione-2,3

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 8, pp. 2480-2484

TEXT: The purpose of the present work was to synthesize the dihydrazone of cyclohexanedione (I) which had been characterized incompletely by N. A. Domnin and N. S. Glebovskaya (Ref. 1). For comparison, also the synthesis of the acyclic dihydrazone of hexanedione-2,3 (II) was performed.



Card 1/4



85712

Investigations in the Field of Poly-  
methylene Rings. XXXV. Synthesis of  
Dihydrazones of Cyclohexanedione-1,2  
and Hexanedione-2,3

S/079/60/030/008/009/012/XX  
B001/B066

The modification of the conditions of synthesis described in Ref. 1 proved to be ineffective. When adding hydrazine to cyclohexanedione-1,2, the reaction product was always an orange oil which did not crystallize. Only after a storage of several months a small number of crystals were formed which, after separation from the oil and recrystallization, were identified to be the dihydrazone of the ketazine of cyclohexanedione-1,2 (III). Only in one case a large dihydrazone (I) crystal separated out (Ref. 1). Compound (III) is probably formed according to scheme 1. The cyclohexanedione-1,2 (IV) has an enol form (Ref. 2). As the other intermediates could not be separated, their structural formulas are only hypothetical. The formation of dihydrazone (I) seems little likely under these conditions, all the more since it could be separated in one experiment only. In view of these facts, the authors changed the order in which the reagents are added and obtained good dihydrazone (I) yields. It was difficultly crystallized from the reaction mass which represented a supersaturated solution of (I) in alcohol, water, and hydrazine. Dihydrazone (I) is easily soluble in

X

Card 2/4

05/12

Investigations in the Field of Polymethylene Rings. XXXV. Synthesis of Dihydrazones of Cyclohexanedione-1,2 and Hexanedione-2,3 S/079/60/030/008/009/012/XX  
B001/B066

these solvents, so that no crystals could form. Crystallization was only induced by inoculation and by recrystallization from benzene. The dihydrazone structure was confirmed by ultimate analysis and determination of the molecular weight. It was not possible to prove the presence of a C=N double bond by spectrum analysis of dihydrazone (I), as its intensity in the infrared spectrum is low; but a primary amino group and the absence of a keto group were confirmed in this way. The dihydrazone of hexanedione-2,3 (II) was synthesized by the method of Ref. 3 to compare its properties with those of dihydrazone (I), and to see whether steric hindrances were the cause of the difficult synthesis of the latter. The investigation showed that in the formation of both dihydrazones, (I) and (II), no steric hindrances are observed. This fact was already confirmed when studying the models of these compounds. There are 8 references: 6 Soviet, 1 Italian, and 1 German.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

Card 3/4

~~USSR/ Chemistry~~ ~~Cements for Metals~~

S. B. ISAKOVA

11 Jul 52

ISAKOVA, S. B. Carbinol Glue

"The Cementing of Metals with Carbinol Glue and the Inhibiting Action of Some of These Metals on the Process of Initiated Polymerization," A. Ya. Korolev, I. V. Stepanova, S. B. Isakova

DAN SSSR, Vol 85, No 2, pp 331-333

The effect of some metals on the polymerization of vinyl ethyldimethylcarbinol was studied. The metals used were Zn, Ni, Cr, Sn, steel, dural, Pb, Cu, bronze, brass, Ag and Au. It was shown that Pb, and Cu and its alloys slow down the polymerization to a marked degree and that the ordinary way of joining metal to metal is unsatisfactory. Satisfactory cementing of the above metals is accomplished after a preliminary thickening of the carbinol glue to a viscosity of 200-500 poises. Presented by Acad A. V. Topchiyev 26 Apr 52.

256T4

ISAKOVA, S.B.

KOZLOVA, P.K., inzhener; LEONOVA, I.N., inzhener; ISAKOVA, S.B.,  
inzhener; DARAZHIO, G.N., inzhener.

Weatherproof lacquer-paint coatings on agricultural machines.  
Sel'khoz mashina no.12:27-29 D '53. (MLRA 6:12)  
(Agricultural machinery--Painting)

ENT(m)/T/EWP(t)/EWI(d) JD/WB/DJ  
ACC NR: AR5020016

SOURCE CODE: UR/0031/65/000/012/K017/K017

AUTHOR: Bergman, K.G.; Isakova, T.G.

12  
B

ORG: none

TITLE: A study of corrosion resistance of fluorinated separative liquids and lubricant

SOURCE: Ref. zh. Khimiya, Abs. 12K91

REF SOURCE: Vestn. tekhn. i ekon. inform. N.-1. in-t tekhn.-ekon. issled. Gos. kom-ta khim. prom-sti pri Gosplane SSSR, vyp. 9, 1964, 2, 31

TOPIC TAGS: lubricant, fluorinated organic compound, phosphoric acid, nitric acid, sulfuric acid, chemical resistance

TRANSLATION: The results are given of studies made on the chemical resistance of fluorinated lubricants "ZF", "10-OKF", and the separating fluids "Nos. 12 and 13 in various aggressive media (5, 30, 75, and 98% H<sub>2</sub>SO<sub>4</sub>; oleum containing 21.8% of free SO<sub>3</sub>; nitrose containing 81% of H<sub>2</sub>SO<sub>4</sub> and 4.5% of HNO<sub>3</sub>, extracting H<sub>3</sub>PO<sub>5</sub> with a concentration of 22 and 26% P<sub>2</sub>O<sub>5</sub>) at temperatures of 20, 50, and 100°C. Chemically stable separating fluids are necessary for pressure measurements and aggressive liquid expenditure in the production at basic chemical industries. New corrosion- and tempera-

Card 1/2

2

ISAKOVA, T.P.

Effect of nivaline and amizil on the electroencephalogram and orientation responses in man. Zhur. vys. nerv. deiat. 15 no.6: 1113-1122 N-D '65. (MIRA 19:1)

1. Tsentral'nyy institut sudebnoy psikhatrii im. V.P. Serbskogo.  
Submitted October 16, 1964.

POLYANSKIY, V.B.; ISAKOVA, T.V.

Inversion of light-induced potentials in the visual cortex of rabbits in a waking state. Zhur. vys. nerv. deiat. 15 no.1: 140-147 Ja-F '65. (MIRA 18:5)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti i kafedra psikhologii Moskovskogo gosudarstvennogo universiteta.

PANYUKOVA, M.A.; ISAKOVA, V.A.; TEREKHOVA, R.P.

Dehalogenation of iodoxybehenic acids by alkaline earth hydroxides.  
Part 2. Zhur.ob.khim. 33 no.12:4002-4004 D '63. (MIRA 17:3)

1. Ural'skiy gosudarstvennyy universitet.

L 3552-65 EWT(m)/EPF(c)/EWP(j)/I RM

ACCESSION NR: AP5024398

UR/0206/65/000/015/0080/0050

AUTHORS: Danilov, S. N.; Ustyuzhanin, G. Ye.; Sidorova, N. S.; Kogan, B. M.  
Isakova, V. F.

TITLE: A method for obtaining epoxy resins. Class 39, No. 173405

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 80

TOPIC TAGS: epoxy, resin, alcohol, phenol

ABSTRACT: This Author Certificate presents a method for obtaining epoxy resins by condensing epichlorhydrin of a polyatomic alcohol with biatomic phenols applicable to the production of epoxy resins (for instance, resorcin or dian). The reaction is carried out in the presence of a base at a rising temperature, and solidification proceeds in the usual manner. To broaden the base of raw material by replacing the edible products with inedible ones, epichlorhydrin of xilitane-1,4-2,3-dianhydro-5-chlor-5-desoxyxylite is used as epichlorhydrin of a polyatomic alcohol.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy, AN SSSR (Institute of High Molecular Compounds, AN SSSR)

Card 1/2

L 3552-66

ACCESSION NR: AP5024398

SUBMITTED: 10Nov63

ENCL: 00

SUB CODE: 00, *gc*

NO REF SOV: 000

OTHER: 000

*mlr*  
Card 2/2

GORYACHEVA, R.I.; ZHUKOVA, L.M.; NESMEYANOV, A.N., akademik, glav. red.; TOPCHIYEV, A.V., akademik, zam. glav. red.; ISAKOVA, O.V., otv. red.; LIKHTENSHEYN, Ye.S., otv. red.; SHUNKOV, V.I., otv. red. SHCHERBAKOV, V.K., red. izd-va; DOROKHINA, I.N., tekhn. red.

Nikolai Ivanovich Vavilov. Vstup. stat'ia P.A. Baranova. Bibliografiia sots. R.I. Goriachevoi i L.M. Zhukovoi. Moskva, Izd-vo Akad. nauk SSSR, 1962. 88 p. (Materialy k bibliografii uchenykh SSSR. Seriya biologicheskikh nauk, no.6)  
(MIRA 16:6)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent AN SSSR (for Shunkov).

(Bibliography--Vavilov, Nikolai Ivanovich, 1887-1943)

ISAKOVA, V.I., prof., red.; MEDVEDEVA, R., red.isd-va; LEBEDEV, A.,  
tekhn. red.

[Problems of accounting mechanization] Problemy mekhaniza-  
tsii ucheta; sbornik statei. Moskva, Gosfinizdat, 1963.  
170 p. (MIRA 16:8)  
(Machine accounting)

9 (2, 3)

SOV/162-59-1-16/27

AUTHORS: Yevtyanov, S.I., Isakova, V.K.

TITLE: Automatic Phase Frequency Trimming With Reduced Phase Instability

PERIODICAL: Nauchnyye doklady vysshey shkoly, Radiotekhnika i elektronika, 1959, Nr 1, pp 134-140

ABSTRACT: The authors describe one of the methods of reducing the phase instability of an automatic phase frequency trimming circuit, suggested by S.I. Yevtyanov. A block diagram of an automatic phase frequency trimming circuit with reduced phase instability is shown in Fig 1. For reducing the phase instability, the frequency detuning of a free self-oscillator  $\omega_0$ , in regard to the frequency of an external force, is compensated by trimming with a frequency detector. The frequency detector, the self-oscillator and a reactance tube form a follow-up system. In case the relative temperature instability of the center frequency of the frequency detector is equal to the instability

Card 1/3

SOV/162-59-1-16/27

Automatic Phase Frequency Trimming With Reduced Phase Instability

When  $\omega_0$ , then the temperature phase instability may be eliminated. The theoretical considerations were checked experimentally at 1400 kc external force frequency. The self-oscillator frequency was about equal to that of the external force. A circuit diagram of the experimental device is shown in Fig 2. Besides the elements, shown in block diagram Fig 1, there are two amplifiers composed of one 6Zh4 tube each. One of the amplifiers serves as frequency detector input. The phase detector is composed of one 6Kh2P tube, while one 6Zh4 tube has been used in the self-oscillator and for the reactance tube. Two DG-Ts21 diodes are used in the frequency detector. The experimental results are in agreement with theoretical assumptions. The results of the experimental investigation are shown in graphs. There are 1 block diagram, 1 circuit diagram, 4 graphs and 1 Russian reference. ✓

Card 2/3

S/108/62/017/007/003/008  
D288/D308

6.4420

AUTHORS:

Yevtyanov, S. I., Isakova, V. K., Members of  
the Society (see Association)

TITLE:

Automatic delayed phase control of frequency

PERIODICAL:

Radiotekhnika, v. 17, no. 7, 1962, 26-33

TEXT:

A general analysis of an a.p.c. system is presented, consisting of the controlled oscillator, r.f. amplifier, phase discriminator, low pass filter, and reactance device. Relationships between acceptable correction delay, low pass filter time constant, and amplitude and phase responses of the amplifier are investigated. Transmission characteristics are established for the amplifier, detector and filter networks, and the reactance valve-oscillator combination, in terms of amplitude and phase coefficients, and the external sync frequency  $\omega_e$ , assuming that the amplifier has symmetrical amplitude and phase response.

JB

Card 1/3

Automatic delayed phase...

S/108/62/017/007/003/008  
D288/D308

is tuned to  $\omega_e$  and has idealized limiting properties. The characteristic equation is discussed and used to derive synchronization and stability limits. The latter are dealt with in detail. Assuming a simple integrating low pass filter with a bell-shaped amplitude response and a linear phase response, an approximate plotting of normalized (i.e., dimensionless) delay vs. the filter time constant, with the normalized amplifier bandwidth as parameter, is described. It becomes more and more accurate when the number of amplifier stages increases. It is also shown that near the stability limits a simple linear relationship exists between the normalized delay and bandwidth. There are 4 figures.

✓  
B

ASSOCIATION:

Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications im. A. S. Popov) [Abstracter's note: Name of Association taken from first page of journal.]

Card 2/3

ISAKOVA, V.S.

Recent data on the geology of the Lake Baikal region. Dokl. AN  
SSSR 151 no.1:161-164 J1 '63. (MIRA 16:9)

1. Predstavleno akademikom A.L.Yanshinym.  
(Baikal Lake region--Geology, Stratigraphic)

ISAKOVA, Ye. K. Cand Phys-Math Sci -- (diss) "Asymptotics of the solution  
of differential equations in partial derivatives of the second order of the  
parabolic type with small parameters <sup>in higher-order</sup> ~~of the major~~ derivatives." Mos, 1957.  
8 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ im M. V.  
Lomonosov. Mechanical Math Faculty), 100 copies (KL, 6-58, 99)

AUTHOR: ISAKOVA, E.K. 20-6-3/47  
 TITLE: The Asymptotic Behavior of the Solution of a Partial Parabolic Differential Equation of Second Order With a Small Parameter for the Highest Derivative (Asimptotika resheniya differentsial'nogo uravneniya v chastnykh proizvodnykh vtorogo poryadka parabolicheskogo tipa s malym parametrom pri starshey proizvodnoy)  
 PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 117, Nr 6, pp 935-938 (USSR)  
 ABSTRACT: Given the following Cauchy problem:

$$(1) \quad L_{\varepsilon} u^{\varepsilon}(x, t) = \varepsilon u_{xx}^{\varepsilon} - u_t^{\varepsilon} + b(x, t) u_x^{\varepsilon} + c(x, t) u^{\varepsilon} = 0$$

$$(2) \quad u^{\varepsilon}(x, t) \Big|_{t=0} = \psi(x), \quad (x, t) \in D_{\infty} \quad (-\infty < x < \infty, 0 \leq t \leq T),$$

where the following conditions are assumed to be satisfied:

$$a) \quad \psi^{(k)}(x) \text{ continuous for } x \neq 0, \quad \lim_{x \rightarrow \pm 0} \psi^{(k)}(x) = \psi^{(k)}(\pm 0),$$

$$\psi(+0) \neq \psi(-0), \quad k=0, 1, \dots, n, \quad n \geq 1; \quad |\psi^{(n)}(x) - \psi^{(n)}(-0)| < c|x|$$

$$\text{for } -\delta \leq x \leq 0; \quad |\psi^{(n)}(x) - \psi^{(n)}(+0)| < c_x \text{ for } 0 \leq x \leq \delta, \text{ where}$$

Card 1/3

$c > 0, \delta > 0$  and arbitrarily small.

The Asymptotic Behavior of the Solution of a Partial Parabolic Differential Equation of Second Order With a Small Parameter for the Highest Derivative 20-6-3/47

where  $x_0$  is the intersection point of  $l(x_1, t_1)$  with  $t = 0$ .

Then there holds the following principle of localization:

If  $u_\delta^\varepsilon(x, t)$  is a solution of (1) which satisfies the condition  $u_\delta^\varepsilon(x, t)|_{t=0} = \psi_\delta(x)$ , then we have

$$u^\varepsilon(x_1, t_1) - u_\delta^\varepsilon(x_1, t_1) = O\left(\frac{1}{\delta(\varepsilon)} \cdot \varepsilon^{\delta/2}\right),$$

where  $\delta(\varepsilon) = B\sqrt{\varepsilon} \varkappa(\varepsilon) \rightarrow 0$  for  $\varepsilon \rightarrow 0$ ,  $\lim_{\varepsilon \rightarrow 0} \varkappa(\varepsilon) = \infty$

(e.g.  $\varkappa(\varepsilon) = \ln \frac{1}{\varepsilon}$ ),  $B = \text{const.}$

1 Soviet and 2 foreign references are quoted.

ASSOCIATION: Moscow State University in M.V. Lomonosov (Moskovskiy gosudarstvennyy universitet in M.V. Lomonosova)

PRESENTED: By S.L. Sobolev, Academician, 21 June 1957

SUBMITTED: 21 June 1957

AVAILABLE: Library of Congress

Card 3/3

AUTHOR: Isakova, Ye.K.

20-119-6-5/56

TITLE: The Asymptotic Behavior of the Solution of a Differential Equation of Parabolic Type With a Small Parameter (Asimptotika resheniya differentsial'nogo uravneniya parabolicheskogo tipa s malym parametrom)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 119, Nr 6, pp 1077-1080 (USSR)

ABSTRACT: The author considers the equation (1)

$$L_{\epsilon} u^{\epsilon}(x, t) = \epsilon \sum A_{ij}(x, t) \frac{\partial^2 u^{\epsilon}}{\partial x_i \partial x_j} + \sum B_j(x, t) \frac{\partial u^{\epsilon}}{\partial x_j} + C(x, t) u^{\epsilon} - \frac{\partial u^{\epsilon}}{\partial t} = 0$$

for different initial and boundary conditions, where certain discontinuities are admitted for these conditions. The author obtains asymptotic expansions for  $\epsilon \rightarrow 0$  in the neighborhood of the discontinuities. She uses the method due to Lyusternik and Vyshik [Ref 3], where the following notion is introduced:

The principal part of the difference  $u^{\epsilon}(x, t) - v(x, t)$  for  $\epsilon \rightarrow 0$  is denoted as an "interior parabolic boundary layer" ( $v(x, t)$  denotes the solution of the degenerated equation (1), i.e. for  $\epsilon = 0$ ).

Card 1/2

There are 3 Soviet references.

DANILOV, V.L.; IVANOVA, A.N.; ISAKOVA, Ye.K.; LYUSTERNIK, L.A.; SALEKHOV,  
G.S.; KHOVANSKIY, A.N.; TSLAF, L.Ya.; YANPOL'SKIY, A.R., dots.; LAPKO,  
A.F., red.; KRYUCHKOVA, V.N., tekhn. red.

[Mathematical analysis; functions, limits, series, continued frac-  
tions] Matematicheskiy analiz; funktsii, predely, riady, tsepye  
drobi. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 439 p.  
(MIRA 14:8)

1. Chlen-korrespondent AN SSSR (for Lyusternik)-  
(Mathematical analysis)

16.3450

S/020/63/148/002/007/037  
B172/B102

AUTHOR: Isakova, Ye. K.

TITLE: Cauchy's problem for parabolic equations with small parameter

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 2, 1963, 271-273

TEXT: The 2p-parabolic equation

$$\tilde{L}_t u^s(x, t) \equiv L_t^1 u^s(x, t) + L_t^2 u^s(x, t) + L_t^p u^s(x, t) = 0,$$

is considered under the condition that

$$u^s(x, t)|_{t=0} = \Psi(x) \equiv \Psi(x) \chi(x_1),$$

where

$$L_t^1 u^s = (-1)^p \sum_{s < |l| < 2p} a_l(x, t) e^{i l / 2p} D^l u^s;$$

Card 1/2

lc

Cauchy's problem for parabolic ...

S/020/63/148/002/007/037  
B172/B102

$$L_\epsilon^s u^\epsilon \equiv e^{\epsilon/2p} \sum_{1 \leq |i| \leq s-1} a_i(x, t) D^{|i|} u^\epsilon;$$

$$L_0 u^\epsilon(x, t) = \sum b_i(x, t) \frac{\partial u^\epsilon}{\partial x_i} + \frac{\partial u^\epsilon}{\partial t} + c(x, t) u^\epsilon(x, t);$$

*✓*

Notations:  $\epsilon > 0$ ;  $s$ -integer,  $1 \leq s \leq 2p-1$ ;  $i = (i_1, \dots, i_n)$ ,  
 $x = (x_1, \dots, x_n) \in E^n$  ( $-\infty < x_i < \infty$ );  $D^i = \partial^{|i|} / \partial x_1^{i_1} \dots \partial x_n^{i_n}$ ;  
 $t \in [0, T]$ ;  $\chi(x) = 0$  for  $x < 0$  and  $\chi(x) = 1$  for  $x \geq 0$ . Four rules are  
formulated as to the behavior of the solution  $u^\epsilon$  for  $\epsilon \rightarrow 0$ .

ASSOCIATION: Vychislitel'nyy tsentr Akademii nauk SSSR (Computer  
Center of the Academy of Sciences USSR)

PRESENTED: July 5, 1962, by S. L. Sobolev, Academician

SUBMITTED: June 30, 1962

Card 2/2

ACCESSION NR: AP4007534

S/0020/63/153/006/1249/1252

AUTHOR: Isakova, Ye. K.

TITLE: General boundary value problem for parabolic equations on a plane

SOURCE: AN SSSR. Doklady\*, v. 153, no. 6, 1963, 1249-1252

TOPIC TAGS: boundary value problem, Petrovskiy parabolic equation, boundary value problem solvability, canonical boundary condition, nondegenerate condition, fundamental solution, Volterra operator, fractional differentiation operator

ABSTRACT: The Petrovskiy-type linear parabolic equation

$$L(x, t, \frac{\partial}{\partial x}, \frac{\partial}{\partial t})u(x, t) = \frac{\partial u}{\partial t} + (-1)^p A_{2p}(x, t) \frac{\partial^{2p} u}{\partial x^{2p}} + \sum_{k=1}^{2p-1} A_k(x, t) \frac{\partial^k u}{\partial x^k} = 0. \quad (1)$$

was examined in the domain  $Q ( 0 \leq t \leq T, \gamma_0(t) \leq x \leq \gamma_1(t) )$ . Here,  $x = \gamma_i(t)$ ;  $i=0,1$ , and are sufficiently smooth curves for the plane  $(x, t)$ , having a finite number of points  $M_i(x_i, t_i)$ ,  $i=1, \dots$

Card 1/3

ACCESSION NR: AP4007534

$M$ , in which the tangent is parallel to the  $x$  axis. The general boundary value problem was examined for equation (1), this problem consisting of the following: there must be a solution to equation (1) in the domain  $Q$  which will satisfy the conditions

$$u(x, t)|_{t=0} = 0, \quad (2)$$

$$B_i \left( x, t, \frac{\partial}{\partial x}, \frac{\partial}{\partial t} \right) u = \varphi_i(t), \quad i = 1, \dots, p, r = 0, 1, \quad (3)$$

where  $B_i$ ;  $i=1, \dots, p$ ,  $r=0, 1$  are linear differential operators with respect to  $\partial/\partial t$  and  $\partial/\partial x$ . Examination was limited to case of one parabolic equation even if results are also valid for parabolic systems in a plane. Equation (1) and conditions (2) and (3) can be called a consistent, natural transform in  $\bar{Q}$  if there exists a function  $v(x, t)$  which satisfies conditions (2) and (3) and is such that the functions

$$\frac{\partial^j v}{\partial t^j} L \left( x, t, \frac{\partial}{\partial t}, \frac{\partial}{\partial x} \right) v(x, t)$$

are continuous in  $\bar{Q}$  for all  $0 \leq j \leq N-2$ ,  $0 \leq k \leq K-1$ , where  $N$  and  $K$  are

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ACCESSION NR: AP4007534

the orders of  $x$  and  $t$  of the differential operator in (3). It is assumed that all coefficients in (1) and (3) are sufficiently smooth, and the equation (1) and conditions (2) and (3) are consistent with natural form. The conditions (3) can then be rewritten in equivalent form

$$B_{\mu}^{\nu} \Big|_{x=\gamma, t) \equiv \sum_{k=0}^{s_{\mu}-1} P_{k\mu}^{\nu} \left( s_{\nu}, \frac{\partial}{\partial s_{\nu}} \right) \frac{\partial^k u}{\partial x^k} \Big|_{x=\gamma, t) = \varphi_{\mu}^{\nu}(t), \quad (4)$$

Conditions (3) and (4) are non-degenerate if the degrees of  $\Lambda_{\mu}^{\nu}$  and  $\Lambda_{\nu}^{\mu}$  for all  $s_{\nu} = 0, S_{\nu} = 1$  coincide with  $\beta_{\nu}$  and  $\beta_1$ . Special boundary condition and a theorem for canonical functions were used to prove the non-degenerate boundary conditions (3) and (4) can always be brought into canonical form. Orig. art. has: 12 Equations

ASSOCIATION: Vy\*chislitel'ny\*ye tsentr Akademii nauk SSSR (Computer center, Academy of Sciences SSSR)

SUBMITTED: 29Jun63

DATE ACQ: 20Jan64

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OTHER: 001

Card 3/3

ISAKOVA, Ye.K.

General boundary value problem for parabolic equations on  
a plane. Dokl. AN SSSR 153 no.6:1249-1252 D '63.  
(MIRA 17:1)

1. Vychislitel'nyy tsentr AN SSSR. Predstavleno akademikom  
A.A. Dorodnitsynym.

ISAKOVA, Ye.K.

Limit amplitude principle for certain boundary value problems on a  
plane. Dokl. AN SSSR 162 no.5:986-987 Je '65. (MIRA 18:7)

1. Vychislitel'nyy tsentr AN SSSR. Submitted December 23, 1964.

L 43950-66 EWI(d) LJP(c)

ACC NR: AP6017598

SOURCE CODE: UR/0039/66/069/002/0300/0320

AUTHOR: Isakova, Ye. K. (Moscow)

ORG: none

21  
B

TITLE: Asymptotic expansion of the solution of a small parameter parabolic equation

SOURCE: Matematichesky sbornik, v. 69, no. 2, 1966, 300-320

TOPIC TAGS: parabolic differential equation, asymptotic expansion, Cauchy problem, *SMALL PARAMETER*

ABSTRACT: Let  $u_\epsilon(x, t)$  be the solution of the following problem

$$L_\epsilon(x, t)u_\epsilon = L_{1\epsilon}(x, t)u_\epsilon + L_0(x, t)u_\epsilon = 0,$$

$$u_\epsilon(x, t)|_{t=0} = \Psi(x) \equiv \chi(x_1)\psi(x).$$

where

$$L_{1\epsilon}(x, t) \equiv \sum_{1 \leq |i| \leq m} \epsilon^{\frac{|i|}{p}} a_i(x, t) D^i, \quad L_0(x, t) = \sum_{j=1}^n b_j(x, t) \left( \frac{\partial}{\partial x_j} + \frac{\partial}{\partial t} \right) + a_0(x, t),$$

$\epsilon > 0$  is a small parameter,  $i = (i_1, \dots, i_n)$ ,  $|i| = i_1 + \dots + i_n$ .

$$x = (x_1, \dots, x_n) \in E^n \quad (-\infty < x < \infty), \quad D^i = \frac{\partial^{|i|}}{\partial x_1^{i_1} \dots \partial x_n^{i_n}}$$

Card 1/2

UDC: 517.946

ISAKOVA, Ye.N., kandidat meditsinskikh nauk (Stanislav)

Pathomorphology of endemic goiter in the Stanislav area. Probl.  
endok. i gorm. 2 no.3:22-28 My-Je '56. (MLRA 9:10)

1. Iz kafedry patologicheskoy anatomii (zav. dotsent G.A.Myrsikov)  
Stanislavskogo meditsinskogo instituta.

(GOITER, pathol.  
histopathol. of endemic goiter)

ISAKOVA, Ye.N.

Histological features of the vermiform appendix in children as related to age. Nov.khir.arkh. no.1:70 Ja-F '58 (MIRA 11:11)

1. Leningradskogo pediatricheskiy i Stnislavskiy meditsinskiye instituty.

(APPENDIX)

ISAKOVA, Ya. N.

Effect of levomycetin on the reticuloendothelial system in experimental animals. Antibiotiki 4 no.6:65-68 N-D '59. (NIRA 13:3)

1. Kafedra patologicheskoy anatomii (zaveduyushchiy G.M. Myrsikov)  
Stanislavskogo gosudarstvennogo meditsinskogo instituta.  
(CHLORAMPHENICOL pharmacol.)  
(RETICULOENDOTHELIAL SYSTEM pharmacol.)

ISAKOVA, Ye.N., kand.med.nauk (Stanislay)

Morphological characteristics of the thyroid glands of newborn infants  
in Stanislay Province. Probl.endok.i gorm. 5 no.4:46-50 J1-Ag '59.  
(MIRA 13:2)

1. Iz kafedry patologicheskoy anatomii (zaveduyushchiy - dotsent G.A.  
Myrsikov) Stanislavskogo gosudarstvennogo meditsinskogo instituta.  
(THYROID GLAND anat. & histol.)

ISAKOVA, Ye.N., kand.med.nauk

Candidomycosis following use of antibiotics. Vrach.delo no.11:1195-  
1197 N '59. (MIRA 13:4)

1. Kafedra patologicheskoy anatomii (zaveduyushchiy - dotsent G.A.  
Myrsikov) Stanislavskogo meditsinskogo instituta.  
(MONILIASIS) (ANTIBIOTICS)

ISAKOVA, Ye.N.

Effect of oxytetracycline on the reticuloendothelial system in experimental animals. Antibiotiki 5 no.6:45-50 N-D '60.

(MIRA 14:3)

1. Kafedra patologicheskoy anatomii (zav.G.A.Myrsikov) Stanislavskogo meditsinskogo instituta.

(TERRAMYCIN)

(RETICULO-ENDOTHELIAL SYSTEM)

ISAKOVA, Ye.N.

Multiple myocardial infarcts following surgery for mitral stenosis.  
Vest.khir. no.8:86-87 '61. (MIRA 15:3)

1. Iz kafedry patologicheskoy anatomii (zav. -- dotsent G.A.  
Myrsikov) Stanislavskogo meditsinskogo instituta.  
(HEART--INFARCTION) (MITRAL VALVE--SURGERY)

SHEVCHUK, M.G.; ISAKOVA, Ye.N. (Stanislav)

Effect of measured physical stress on the course and restitution  
of experimental myocardial infarct. Pat. fiziol. i eksp. terap.  
7 no.6242-45 N-D '63. (MIRA 17:7)

1. Iz kafedry normal'noy anatomii (zav. - prof. Ye.P. Mel'man)  
i kafedry patologicheskoy anatomii (zav. - dotsent G.A.  
Myrsikov [deceased]) Stanislavskogo meditsinskogo instituta.

NESMEYANOV, An.N.; FIRSOVA, L.P.; ISAKOVA, Ye.P. (Moscow)

Measurement of the saturated vapor pressure of lead oxide.  
Zhur.fiz.khim. 34 no.6:1200-1204 Je '60.

(MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.  
Lomonosova.

(Lead oxide) (Vapor pressure)

NESMEYANOV, An.N.; FIRSOVA, L.P.; ISAKOVA, Ye.P.

Measurement of the saturated vapor pressure of solid lead oxide by means of the flow method. Zhur. fiz. khim. 34 no.8:1699-1701 Ag '60.  
(MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Lead oxide) (Vapor pressure)

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S/076/60/034/000/017/039/XX  
B015/B063

**AUTHORS:** Nesmeyanov, An. N., Firsova, L. P., and Isakova, Ye. P.

**TITLE:** Measurement of the Pressure of Saturated Vapor of Solid Lead Monoxide by the Method of Continuous Flow

**PERIODICAL:** Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 18, pp. 1699 - 1701

**TEXT:** In two series of experiments described in Ref. 1, the authors determined the vapor pressure of PbO by evaporation from an open surface and out of an effusion chamber in vacuo. As the results of the two series did not agree with one another and with the data of Feiser, additional measurements have now been made by the method of continuous flow. The measurements were carried out between 1055° and 1153°K with 99.5% PbO (massicot) and with oxygen, air, and nitrogen as carrier gases. The sample was put in a Pt boat which was placed into a quartz or porcelain tube lined with Pt sheet. The tube was then heated in a furnace. The temperature near the Pt boat was measured with a Pt - Pt/Rh thermocouple. The quantity of carrier gas passed through was measured with a Patrikeyev gasometer of

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86154  
Measurement of the Pressure of Saturated Vapor of Solid Lead Monoxide by the Method of Continuous Flow S/076/60/034/008/017/039/XX B015/B063

the type VPCF-1 (URSP-1). The quantity of evaporated PbO was calculated from the weight loss of the sample and from the vapor pressure according to the equation  $p_{\text{PbO}} = p_{\text{G}} \cdot q_0$  ( $p_{\text{G}}$  - pressure of carrier gas;  $q_0$  - extrapolated value obtained from the quantity of carrier gas passed through and from the quantity of evaporated PbO for the given temperature). The previous measurements and the present experiments were evaluated simultaneously, and the following equation was derived by the method of least squares:  $\log p_{\text{atm}} = 8.7002 - 13858/T$ , wherefrom  $\Delta H_{1000} = 67.4$  kcal/mole was obtained from the slope of the straight line. The sublimation heats for  $0^\circ\text{K}$  were calculated from the values of vapor pressure and  $\bar{\Phi}'$  potentials made available by IGI AN SSSR (IGI AS USSR). All values are given in a table. There are 1 table and 4 references: 1 Soviet, 2 German, and 1 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: September 19, 1958

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86151

S/076/60/034/008/017/039/XX  
B015/B063

Давление насыщенного пара твердой окиси свинца

Т. К	Газ-посп- тель	Р <sub>г</sub> , мм рт. ст.	ρ	РР <sub>г</sub> О, мм рт. ст.	1БРР <sub>г</sub> О, мм рт. ст.	ΔФ'	ΔH <sub>г</sub> ккал	ΔH <sub>г</sub> <sup>0</sup> -ΔH <sub>г</sub> <sup>0</sup> ккал
7 1055	Кислород	743	2,15·10 <sup>-5</sup>	1,600·10 <sup>-2</sup>	2,2040	38,7185	63,4241	0,0105
8 1081	Воздух	758	1,25·10 <sup>-5</sup>	9,477·10 <sup>-3</sup>	3,9763	38,6982	64,8687	1,4550
8 1065	Кислород	748	3,16·10 <sup>-5</sup>	2,370·10 <sup>-2</sup>	2,3747	38,6846	63,1661	0,2476
8 1072	Воздух	741	4,57·10 <sup>-5</sup>	3,390·10 <sup>-2</sup>	2,5302	38,6610	62,7845	0,6292
1073	"	740	6,31·10 <sup>-5</sup>	4,670·10 <sup>-2</sup>	2,6694	38,6575	62,1559	1,2578
7 1075	Кислород	741	4,37·10 <sup>-5</sup>	3,240·10 <sup>-2</sup>	2,5105	38,6507	63,0460	0,3677
9 1083	Азот	738	5,50·10 <sup>-5</sup>	4,060·10 <sup>-2</sup>	2,6085	38,6236	63,0002	0,4135
7 1087	Кислород	745	6,30·10 <sup>-5</sup>	4,690·10 <sup>-2</sup>	2,6712	38,6101	62,9063	0,5074
9 1095	Азот	734	5,50·10 <sup>-5</sup>	4,040·10 <sup>-2</sup>	2,6064	38,5829	63,6642	0,2505
7 1101	Кислород	750	5,16·10 <sup>-5</sup>	3,870·10 <sup>-2</sup>	2,5877	38,5669	64,0897	0,6760
8 1107	Азот	736	6,61·10 <sup>-5</sup>	4,860·10 <sup>-2</sup>	2,6866	38,5729	63,9446	0,5309
8 1115	Воздух	742	1,10·10 <sup>-4</sup>	8,162·10 <sup>-2</sup>	2,9118	38,5794	63,2051	0,1486
9 1136	Азот	745	1,26·10 <sup>-4</sup>	9,394·10 <sup>-2</sup>	2,9728	38,5980	64,1606	0,7469
2 1149	Воздух	746	2,14·10 <sup>-4</sup>	0,1600	1,2040	38,6097	63,6929	0,2792
1153	"	745	3,16·10 <sup>-4</sup>	0,2350	1,3711	38,6132	63,0370	0,3767
					10 Среднее		63,414±	0,459

X

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S/076/60/034/008/017/039/XX  
B015/B063

Text to the table: Pressure of Saturated Vapor of Solid Lead Monoxide;  
1 - carrier gas; 2 -  $P_G$ , mm Hg; 3 -  $P_{PbO}$ , mm Hg; 4 -  $\log_{PbO}$ , mm Hg;  
5 -  $\Delta H_O^\circ$  kcal; 6 -  $\Delta \bar{H}_O^\circ - \Delta H_O^\circ$  kcal; 7 - oxygen; 8 - air; 9 - nitrogen;  
10 - mean value.

X

Card 4/4

*ISAKOVA, Ye. Ye.*

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7,  
p 12 (USSR) 14-57-7-14277

AUTHOR: Isakova, Ye. Ye.

TITLE: Function of the Cartographic Investigational Bureau  
in the World Atlas Project (Rabota otdela spravochnoy  
kartograficheskoy sluzhby pri sozdanii Atlasa mira)

PERIODICAL: Sb. statey po kartogr., 1956, Nr 9, pp 15-18

ABSTRACT: Bibliographic entry  
Card 1/1

ISAKOVA, Zelma

Biography of an invention. Ratsionalizatsiia 14 no. 2:15-17  
'64.

SYVOROTKIN, G.S.; ZAYTSEVA, K.I.; SHMAYLOVA, Z.V.; STEPANOVA, T.I.;  
ISAKOVA, Z.N.

Improving the Solonets soils for snow-protection plantations along  
the railroads of the Volga region, Southern Urals and Kazakhstan.  
Trudy TSNII MPS no.204:94-102 '60. (MIRA 14:4)

(Solonets soils) (Windbreaks, shelterbelts, etc.)

SVEDE-SHVETS, M.I.; EYDUK, Yu.A.; YENINA, V.A.; VODOP'YANOVA, L.S.;  
TRUSHIN, Yu.V.; Prinsipali uchastiye: DZENELADZE, Zh.O.;  
ZHUKOVA, Ye.A.; ISAKOVA, Z.S.; PUGACHEVA, V.P.; IGUMNOV, V.Ye.

Thermoelectric characteristics of sintered alloys based on  
tungsten and molybdenum. Sbor. trud. TSNNICHM no.30:7-16 '63.  
(MIRA 16:10)  
(Tungsten-molybdenum alloys--Thermoelectric properties)

YEVROPETSEVA, N.V.; ISAKOVA-KEO M.M.

Raising young whitefish with the cultivation of live food in the  
fattening ponds. Vest. LGU 2 no.6:40-62 Je '47.

(MIRA 12:9)

(Whitefishes) (Fishes—Food)

ISAROVA-NEO, S. S.

Parasites - Carp

Parasites of the carp (*Leuciscus brandti*) and their peculiarities. Uch. zap. Len. un.  
No. 14, 1952.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

ISAKOVA--KEO, M.M.

Results of zonal method of fertilisation in wintering and trout  
ponds. Trudy probl. i tem. soveshch. no.2:102-111 '54. (MIRA 8:5)  
(Fish ponds)

ISAKOVA-KEO, M.M.

Increasing the food supply of bodies of water by zonal fertilizing  
and acclimatizing invertebrate organisms. Trudy probl. i tem. sov.  
no.7:62-67 '57. (MLRA 10:4)

(Fish ponds) (Zooplankton) (Fertilizers and manures)

ISAKOVA-KEO, M.M.

Control of Ichthyophthirius [with summary in German]. Trudy Len.  
ob-va est. 73 no.4:188-192 '57. (MIRA 11:6)

1.Kafedra zoologii bespozvonochnykh Leningradskogo universiteta.  
(Latvia--Ciliata) (Parasites--Salmon)